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         AUG 27 CAS definition of basic patents expanded to ensure
                 comprehensive access to substance and sequence
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                 Support for STN Express, Versions 6.01 and earlier,
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         SEP 18
                 to be discontinued
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         SEP 25
                 CA/CAplus current-awareness alert options enhanced
                 to accommodate supplemental CAS indexing of
                 exemplified prophetic substances
NEWS 22
         SEP 26
                 WPIDS, WPINDEX, and WPIX coverage of Chinese and
                 and Korean patents enhanced
         SEP 29
NEWS 23
                 IFICLS enhanced with new super search field
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         SEP 29
                 EMBASE and EMBAL enhanced with new search and
                 display fields
NEWS 25
         SEP 30 CAS patent coverage enhanced to include exemplified
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prophetic substances identified in new Japaneselanguage patents

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NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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chain nodes :
10 11 13
ring nodes :
1 2 3 4 5 6 7
chain bonds :
1-10 5-13 6-11
ring bonds :
1-2 1-5 2-3 3-4 3-6 4-5 4-7 6-7
exact/norm bonds :
1-5 1-10 2-3 3-4 3-6 4-5 4-7 5-13 6-7 6-11
exact bonds :
1-2
isolated ring systems :
containing 1 :

G1:Ph,Cy,Hy

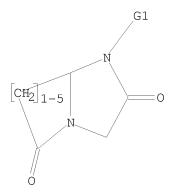
Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 10:CLASS 11:CLASS 13:CLASS

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STF



G1 Ph,Cy,Hy

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SAMPLE SCREEN SEARCH COMPLETED - 102 TO ITERATE

100.0% PROCESSED 102 ITERATIONS 4 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 1435 TO 2645 PROJECTED ANSWERS: 4 TO 200

L2 4 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 16:13:00 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1871 TO ITERATE

100.0% PROCESSED 1871 ITERATIONS 56 ANSWERS

SEARCH TIME: 00.00.01

L3 56 SEA SSS FUL L1

=> FIL HCAPLUS

COST IN U.S. DOLLARS SINCE FILE TOTAL

FULL ESTIMATED COST ENTRY SESSION 178.36 178.57

FILE 'HCAPLUS' ENTERED AT 16:13:05 ON 15 OCT 2008

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FILE COVERS 1907 - 15 Oct 2008 VOL 149 ISS 16 FILE LAST UPDATED: 14 Oct 2008 (20081014/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4 3 L3

=> d 14 ibib abs hitstr tot

L4 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:615194 HCAPLUS

DOCUMENT NUMBER: 148:554103

TITLE: Pyrrolo[1,2-a]imidazoledione effective in the treatment of peripheral neurotoxicity induced by

chemotherapeutic agents

INVENTOR(S): Farina, Carlo; Ghelardini, Carla; Petrillo, Paola

PATENT ASSIGNEE(S): Brane Discovery S.r.l., Italy

SOURCE: PCT Int. Appl., 27pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.						KIN	D 1	DATE			APPL	DATE							
	WO	2008	0589	88		A1	A1 20080522			,	WO 2	007 - 1		20071114					
		W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,	
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FΙ,	
			GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	
			KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,	
			MG,	MK,	MN,	MW,	MX,	MY,	ΜZ,	NA,	NG,	NΙ,	NO,	NΖ,	OM,	PG,	PH,	PL,	
			PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ТJ,	TM,	TN,	
			TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW					
		RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	
			IS,	ΙΤ,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP 1925304 20080528 EP 2006-124142 20061115 Α1 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS

PRIORITY APPLN. INFO.:

EP 2006-124142 The use of compound 1-(4-methylphenyl)dihydro-1H-pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione (I) in treating and/or preventing chemotherapy-induced peripheral neurotoxicity (CIPN) is described. The invention includes pharmaceutical compns. wherein the compound I is present in a mixture with anticancer agents. An improved anticancer treatment with reduced CIPN-related side effects is also provided. Thus, racemic I (NiK-13317) was prepared by reaction of dihydro-1H-pyrrolo[1,2-a]imidazole-2,5(3H,6H)dione with 1-iodo-4-methylbenzene. Neuroprotective effects of NiK-13317 were observed in a rat model of peripheral neuropathy induced by vincristine, paclitaxel and oxaliplatin.

1020410-89-2P, NiK 16140 ΤT

> RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NiK 16140; preparation and cytoprotective activity of pyrroloimidazoledione derivative against antitumor agent-induced peripheral neurotoxicity)

1020410-89-2 HCAPLUS

1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methylphenyl)-, CN (7aS) - (CA INDEX NAME)

Absolute stereochemistry.

770730-86-4P 1020410-90-5P ΤT

> RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and cytoprotective activity of pyrroloimidazoledione derivative against antitumor agent-induced peripheral neurotoxicity)

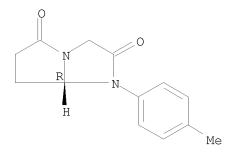
770730-86-4 HCAPLUS RN

1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methylphenyl)-CN (CA INDEX NAME)

RN 1020410-90-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methylphenyl)-, (7aR)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:413910 HCAPLUS

DOCUMENT NUMBER: 148:462516

TITLE: Synthesis and biological evaluation of novel

dimiracetam derivatives useful for the treatment of

neuropathic pain

AUTHOR(S): Farina, Carlo; Gagliardi, Stefania; Ghelardini, Carla;

Martinelli, Marisa; Norcini, Monica; Parini, Carlo;

Petrillo, Paola; Ronzoni, Silvano

CORPORATE SOURCE: Brane Discovery, Gerenzano, Varese, 21040, Italy

SOURCE: Bioorganic & Medicinal Chemistry (2008), 16(6),

3224-3232

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:462516

GΙ

Ι

Chemical modifications of dimiracetam (I), a bicyclic analog of the nootropic drug piracetam, afforded a small set of novel derivs. that were investigated in in vivo models of neuropathic pain. Compds. 5, 7 and 8 displayed a very promising antihyperalgesic profile in rat models of neuropathic pain induced by both chronic constriction injury of the sciatic nerve and streptozotocin. The compds. completely reverted the reduction of pain threshold evaluated by the paw pressure test. Importantly these derivs. did not induce any behavioral impairment as evaluated by the rotarod test. These results suggest that compds. 5, 7 and 8 might represent novel and well-tolerated therapeutic agents for the relief of neuropathic pain.

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770730-81-9P 770730-82-0P 770730-85-3P
ΙT
     770730-86-4P 770730-87-5P 770730-88-6P
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     770730-95-5P 770730-96-6P 770730-97-7P
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     1020410-83-6P 1020410-84-7P 1020410-85-8P
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     1020410-89-2P 1020410-90-5P 1020410-91-6P
     1020410-92-7P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (dimiracetam derivs. for treatment of neuropathic pain)
     770730-81-9 HCAPLUS
RN
```

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-phenyl- (CA INDEX NAME)

RN 770730-82-0 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-methylphenyl)-(CA INDEX NAME)

RN 770730-85-3 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(3-methylphenyl)-(CA INDEX NAME)

RN 770730-86-4 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methylphenyl)-(CA INDEX NAME)

RN 770730-87-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(5-fluoro-2-methylphenyl)dihydro- (CA INDEX NAME)

RN 770730-88-6 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
1-(3-fluoro-2-methylphenyl)dihydro- (CA INDEX NAME)

RN 770730-89-7 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
dihydro-1-[2-(trifluoromethyl)phenyl]- (CA INDEX NAME)

RN 770730-90-0 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
1-(4-chloro-2-methylphenyl)dihydro- (CA INDEX NAME)

RN 770730-91-1 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3-chlorophenyl)dihydro-(CA INDEX NAME)

RN 770730-92-2 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(3-methoxyphenyl)-(CA INDEX NAME)

RN 770730-93-3 HCAPLUS

CN Benzonitrile, 3-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770730-94-4 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(4-chlorophenyl)dihydro-(CA INDEX NAME)

RN 770730-95-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(3-hydroxyphenyl)-(CA INDEX NAME)

RN 770730-96-6 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

RN 770730-97-7 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)

RN 770730-98-8 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methoxyphenyl)-(CA INDEX NAME)

RN 770730-99-9 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3,5-dimethylphenyl)dihydro- (CA INDEX NAME)

RN 770731-00-5 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
1-(3,4-dimethylphenyl)dihydro- (CA INDEX NAME)

RN 770731-02-7 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
dihydro-1-[3-(1-methylethyl)phenyl]- (CA INDEX NAME)

RN 770731-03-8 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
1-(4-chloro-3-methylphenyl)dihydro- (CA INDEX NAME)

RN 770731-07-2 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
1-(3-fluoro-5-methylphenyl)dihydro- (CA INDEX NAME)

RN 770731-08-3 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3-fluoro-4-methylphenyl)dihydro- (CA INDEX NAME)

RN 770731-12-9 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(4-ethylphenyl)dihydro-(CA INDEX NAME)

RN 770731-13-0 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[4-(1-methylethyl)phenyl]- (CA INDEX NAME)

RN 770731-14-1 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[4-(hydroxymethyl)phenyl]- (CA INDEX NAME)

10550483

RN 770731-15-2 HCAPLUS

CN Benzoic acid, 4-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770731-16-3 HCAPLUS

CN Benzoic acid, 4-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)-, ethyl ester (CA INDEX NAME)

RN 770731-17-4 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[4-(methylsulfonyl)phenyl]- (CA INDEX NAME)

RN 770731-18-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(4-fluorophenyl)dihydro-(CA INDEX NAME)

RN 770731-19-6 HCAPLUS

CN Benzonitrile, 4-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770731-23-2 HCAPLUS

CN Benzonitrile, 2-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770731-24-3 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3-fluorophenyl)dihydro-(CA INDEX NAME)

RN 1020410-82-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3,5-difluorophenyl)dihydro- (CA INDEX NAME)

RN 1020410-83-6 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(2-fluoro-5-methylphenyl)dihydro- (CA INDEX NAME)

RN 1020410-84-7 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3-chloro-2-methylphenyl)dihydro- (CA INDEX NAME)

RN 1020410-85-8 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(4-fluoro-2-methylphenyl)dihydro- (CA INDEX NAME)

RN 1020410-86-9 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(4-fluoro-3-methylphenyl)dihydro- (CA INDEX NAME)

$$\bigcap_{N} \bigcap_{N} \bigoplus_{F}$$

RN 1020410-87-0 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-methylphenyl)-, (7aS)- (CA INDEX NAME)

10550483

Absolute stereochemistry.

RN 1020410-88-1 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-methylphenyl)-, (7aR)- (CA INDEX NAME)

Absolute stereochemistry.

RN 1020410-89-2 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methylphenyl)-, (7aS)- (CA INDEX NAME)

Absolute stereochemistry.

RN 1020410-90-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methylphenyl)-, (7aR)- (CA INDEX NAME)

Absolute stereochemistry.

RN 1020410-91-6 HCAPLUS

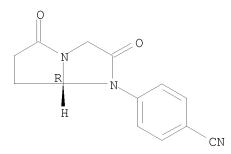
CN Benzonitrile, 4-[(7aS)-hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 1020410-92-7 HCAPLUS

CN Benzonitrile, 4-[(7aR)-hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:817893 HCAPLUS

DOCUMENT NUMBER: 141:332191

TITLE: Preparation of new bicyclic arylimidazolones with

nootropic action

INVENTOR(S): Farina, Carlo; Gagliardi, Stefania; Parini, Carlo;

Martinelli, Marisa; Ghelardini, Carla

PATENT ASSIGNEE(S): Nikem Research S.r.l., Italy

SOURCE: PCT Int. Appl., 36 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	PATENT NO.						KIND DATE			APPI	ICAT	DATE								
WO	 WO 2004085438 WO 2004085438				A2 20041			1007 WO 2004-EP50339						20040322						
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PRIORIT	RIORITY APPLN. INFO.:										2003-1									
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OTHER SO	HER SOURCE(S):						CT 14	1 : 332	2191	; M.	ARPAT	141	:332	191						

$$R^{4}$$
 N
 R^{2}
 R^{2}
 R^{2}

AB The title compds. [I; A = aryl, heteroaryl, arylalkyl; R1 = H, arylalkyl,

heterocyclylalkyl, etc.; R2 = H, alkyl, arylakyl, Ph; or R1 and R2, taken together, form a saturated carbocyclic ring; R3 = H, alkyl, aryl, arylalkyl, heterocyclyl; n = 2-4; R4 = H, alkyl, aryl, etc.] having nootropic action (i.e., protecting and stimulating cerebral functions), analgesic action and antihyperalgesic action, and therefore useful for the treatment of cognitive deficits, and of various types of pain, were prepared Thus, reacting tetrahydro-pyrrolo[1,2-a]imidazole-2,5-dione with iodobenzene afforded 1-phenyl-tetrahydro-1H-pyrrolo[1,2-a]imidazole-2,5-dione which was evaluated in a rat model of mononeuropathy (data given). The pharmaceutical compns. comprising the compound I are claimed. ΙT 770730-81-9P, 1-Phenyl-tetrahydro-1H-pyrrolo[1,2-a]imidazole-2,5dione 770730-82-0P 770730-83-1P 770730-84-2P 770730-85-3P 770730-86-4P 770730-87-5P 770730-88-6P 770730-89-7P 770730-90-0P 770730-91-1P 770730-92-2P 770730-93-3P 770730-94-4P 770730-95-5P 770730-96-6P 770730-97-7P 770730-98-8P 770730-99-9P 770731-00-5P 770731-01-6P 770731-02-7P 770731-03-8P 770731-04-9P 770731-05-0P 770731-06-1P 770731-07-2P 770731-08-3P 770731-09-4P 770731-10-7P 770731-11-8P 770731-12-9P 770731-13-0P 770731-14-1P 770731-15-2P 770731-16-3P 770731-17-4P 770731-18-5P 770731-19-6P 770731-20-9P 770731-21-0P 770731-22-1P 770731-23-2P 770731-24-3P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (preparation of pyrroloimidazolones with nootropic action) RN 770730-81-9 HCAPLUS 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-phenyl- (CA INDEX CN

RN 770730-82-0 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-methylphenyl)(CA INDEX NAME)

RN 770730-83-1 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(2,6-dimethylphenyl)dihydro- (CA INDEX NAME)

RN 770730-84-2 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-thienyl)- (CA INDEX NAME)

RN 770730-85-3 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(3-methylphenyl)-(CA INDEX NAME)

RN 770730-86-4 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methylphenyl)-(CA INDEX NAME)

RN 770730-87-5 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
1-(5-fluoro-2-methylphenyl)dihydro- (CA INDEX NAME)

RN 770730-88-6 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
1-(3-fluoro-2-methylphenyl)dihydro- (CA INDEX NAME)

RN 770730-89-7 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
dihydro-1-[2-(trifluoromethyl)phenyl]- (CA INDEX NAME)

RN 770730-90-0 HCAPLUS
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,
1-(4-chloro-2-methylphenyl)dihydro- (CA INDEX NAME)

RN 770730-91-1 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3-chlorophenyl)dihydro-(CA INDEX NAME)

RN 770730-92-2 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(3-methoxyphenyl)-(CA INDEX NAME)

RN 770730-93-3 HCAPLUS

CN Benzonitrile, 3-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770730-94-4 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(4-chlorophenyl)dihydro-(CA INDEX NAME)

RN 770730-95-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(3-hydroxyphenyl)-(CA INDEX NAME)

RN 770730-96-6 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

RN 770730-97-7 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)

RN 770730-98-8 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(4-methoxyphenyl)-(CA INDEX NAME)

770730-99-9 HCAPLUS RN CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,

1-(3,5-dimethylphenyl)dihydro- (CA INDEX NAME)

RN 770731-00-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,

1-(3,4-dimethylphenyl)dihydro- (CA INDEX NAME)

770731-01-6 HCAPLUS RN

1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-naphthalenyl)-CN (CA INDEX NAME)

RN 770731-02-7 HCAPLUS

1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, CN dihydro-1-[3-(1-methylethyl)phenyl]- (CA INDEX NAME)

RN 770731-03-8 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione,

1-(4-chloro-3-methylphenyl)dihydro- (CA INDEX NAME)

RN 770731-04-9 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-phenyl-3-(phenylmethyl)- (CA INDEX NAME)

RN 770731-05-0 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-3-methyl-1-phenyl-(CA INDEX NAME)

RN 770731-06-1 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-3-(2-methylpropyl)-1-phenyl- (CA INDEX NAME)

RN 770731-07-2 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3-fluoro-5-methylphenyl)dihydro- (CA INDEX NAME)

RN 770731-08-3 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3-fluoro-4-methylphenyl)dihydro- (CA INDEX NAME)

RN 770731-09-4 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-7a-methyl-1-phenyl-(CA INDEX NAME)

RN 770731-10-7 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-phenyl-, (7aS)-(CA INDEX NAME)

Absolute stereochemistry.

RN 770731-11-8 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-phenyl-, (7aR)-(CA INDEX NAME)

Absolute stereochemistry.

RN 770731-12-9 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(4-ethylphenyl)dihydro-(CA INDEX NAME)

RN 770731-13-0 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[4-(1-methylethyl)phenyl]- (CA INDEX NAME)

RN 770731-14-1 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[4-(hydroxymethyl)phenyl]- (CA INDEX NAME)

RN 770731-15-2 HCAPLUS

CN Benzoic acid, 4-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

10550483

RN 770731-16-3 HCAPLUS

CN Benzoic acid, 4-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)-, ethyl ester (CA INDEX NAME)

RN 770731-17-4 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-[4-(methylsulfonyl)phenyl]- (CA INDEX NAME)

RN 770731-18-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(4-fluorophenyl)dihydro-(CA INDEX NAME)

RN 770731-19-6 HCAPLUS

CN Benzonitrile, 4-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770731-20-9 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-pyridinyl)- (CA INDEX NAME)

RN 770731-21-0 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(3-pyridinyl)- (CA INDEX NAME)

RN 770731-22-1 HCAPLUS

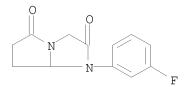
CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(5-methyl-2-pyridinyl)- (CA INDEX NAME)

RN 770731-23-2 HCAPLUS

CN Benzonitrile, 2-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770731-24-3 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3-fluorophenyl)dihydro-(CA INDEX NAME)



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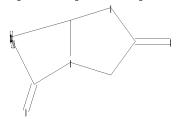
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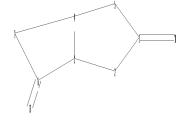
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10 11
ring nodes :
1 2 3 4 5 6 7
chain bonds :
1-10 6-11
ring bonds :
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exact bonds :
1-2
isolated ring systems :
containing 1 :

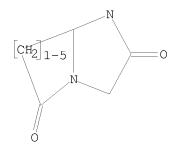
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G1 Ph,Cy,Hy

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 96 ITERATIONS 5 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

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PROJECTED ANSWERS: 5 TO 234

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SEARCH TIME: 00.00.01

L7 104 SEA SSS FUL L5

=> FIL HCAPLUS

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L9 3 L8 AND PY<=2003

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10550483

L8 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:413910 HCAPLUS

DOCUMENT NUMBER: 148:462516

TITLE: Synthesis and biological evaluation of novel

dimiracetam derivatives useful for the treatment of

neuropathic pain

AUTHOR(S): Farina, Carlo; Gagliardi, Stefania; Ghelardini, Carla;

Martinelli, Marisa; Norcini, Monica; Parini, Carlo;

Petrillo, Paola; Ronzoni, Silvano

CORPORATE SOURCE: Brane Discovery, Gerenzano, Varese, 21040, Italy

SOURCE: Bioorganic & Medicinal Chemistry (2008), 16(6),

3224-3232

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:462516

GΙ

Ι

Chemical modifications of dimiracetam (I), a bicyclic analog of the nootropic drug piracetam, afforded a small set of novel derivs. that were investigated in in vivo models of neuropathic pain. Compds. 5, 7 and 8 displayed a very promising antihyperalgesic profile in rat models of neuropathic pain induced by both chronic constriction injury of the sciatic nerve and streptozotocin. The compds. completely reverted the reduction of pain threshold evaluated by the paw pressure test. Importantly these derivs. did not induce any behavioral impairment as evaluated by the rotarod test. These results suggest that compds. 5, 7 and 8 might represent novel and well-tolerated therapeutic agents for the relief of neuropathic pain.

IT 770730-82-0P 770730-93-3P 770731-00-5P

1020410-82-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(dimiracetam derivs. for treatment of neuropathic pain)

RN 770730-82-0 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-methylphenyl)-(CA INDEX NAME)

RN 770730-93-3 HCAPLUS

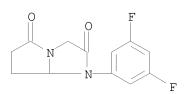
CN Benzonitrile, 3-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770731-00-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3,4-dimethylphenyl)dihydro- (CA INDEX NAME)

RN 1020410-82-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3,5-difluorophenyl)dihydro- (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:817893 HCAPLUS

DOCUMENT NUMBER: 141:332191

TITLE: Preparation of new bicyclic arylimidazolones with

nootropic action

INVENTOR(S): Farina, Carlo; Gagliardi, Stefania; Parini, Carlo;

Martinelli, Marisa; Ghelardini, Carla

PATENT ASSIGNEE(S): Nikem Research S.r.l., Italy

SOURCE: PCT Int. Appl., 36 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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$$R^{4}$$
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 R^{2}
 R^{2}
 R^{2}

AB The title compds. [I; A = aryl, heteroaryl, arylalkyl; R1 = H, arylalkyl,

heterocyclylalkyl, etc.; R2 = H, alkyl, arylakyl, Ph; or R1 and R2, taken together, form a saturated carbocyclic ring; R3 = H, alkyl, aryl, arylalkyl, heterocyclyl; n = 2-4; R4 = H, alkyl, aryl, etc.] having nootropic action (i.e., protecting and stimulating cerebral functions), analgesic action and antihyperalgesic action, and therefore useful for the treatment of cognitive deficits, and of various types of pain, were prepared Thus, reacting tetrahydro-pyrrolo[1,2-a]imidazole-2,5-dione with iodobenzene afforded 1-phenyl-tetrahydro-1H-pyrrolo[1,2-a]imidazole-2,5-dione which was evaluated in a rat model of mononeuropathy (data given). The pharmaceutical compns. comprising the compound I are claimed.

IT 770730-82-0P 770730-93-3P 770731-00-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrroloimidazolones with nootropic action)

RN 770730-82-0 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, dihydro-1-(2-methylphenyl)-(CA INDEX NAME)

RN 770730-93-3 HCAPLUS

CN Benzonitrile, 3-(hexahydro-2,5-dioxo-1H-pyrrolo[1,2-a]imidazol-1-yl)- (CA INDEX NAME)

RN 770731-00-5 HCAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-2,5(3H,6H)-dione, 1-(3,4-dimethylphenyl)dihydro- (CA INDEX NAME)

L8 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:253481 HCAPLUS

DOCUMENT NUMBER: 120:253481

ORIGINAL REFERENCE NO.: 120:44722h,44723a

TITLE: Chiral high-performance liquid chromatography of some

related bicyclic lactams

AUTHOR(S): Camilleri, Patrick; Eggleston, Drake; Farina, Carlo;

Murphy, Jose A.; Pfeiffer, Ugo; Pinza, Mario; Senior,

Lesley A.

CORPORATE SOURCE: SmithKline Beecham, The Frythe, Welwyn Hertfordshire,

AL6 9AR, UK

SOURCE: Journal of Chromatography (1993), 654(2), 207-13

CODEN: JOCRAM; ISSN: 0021-9673

DOCUMENT TYPE: Journal LANGUAGE: English

AB Chromatog. methods utilizing a Chiralcel OC cellulose-based column were

developed for the chiral resolution of optical isomers of the

cognition-enhancing ISF 4185 and related bicyclic lactams. These methods were scaled up for the preparation of purified samples of enantiomers, one pair

of which was submitted to x-ray anal. The resolution of the enantiomers derived from these compds. appears to be mainly dependent on their ability

to hydrogen bond to the chiral stationary phase.

IT 126101-10-8

RL: PROC (Process)

(resolution of, by chiral HPLC)

RN 126101-10-8 HCAPLUS

CN Imidazo[1,2-a]pyridine-2,5(1H,3H)-dione, tetrahydro- (CA INDEX NAME)

NH NH

L8 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:191621 HCAPLUS

DOCUMENT NUMBER: 120:191621

ORIGINAL REFERENCE NO.: 120:33919a,33922a

TITLE: Synthesis and pharmacological activity of a series of

dihydro-1H-pyrrolo[1,2-a]imidazole-2,5(3H,6H)-diones,

a novel class of potent cognition enhancers

AUTHOR(S): Pinza, Mario; Farina, Carlo; Cerri, Alberto; Pfeiffer,

Ugo; Riccaboni, Maria T.; Banfi, Silvano; Biagetti,

Raffaella; Pozzi, Ottorino; Magnani, Maurizio;

Dorigotti, Luciano

CORPORATE SOURCE: Res. Lab., SmithKline Beecham Farmaceutici S.p.A.,

Baranzate, 20021, Italy

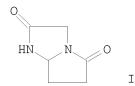
SOURCE: Journal of Medicinal Chemistry (1993), 36(26), 4214-20

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 120:191621

GΙ

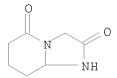


A series of dihydro-1H-pyrrolo[1,2-a]imidazole-2,5(3H,6H)-diones, e.g. dimiracetam (I), were synthesized. These bicyclic derivs. contain both the 2-pyrrolidinone and 4-imidazolidinone nuclei, already recognized as important for cognition enhancing activity. In addition, these structures maintain the backbone of piracetam and oxiracetam with the acetamide side chain restricted in a folded conformation. Their ability to reverse scopolamine-induced amnesia was assessed in a one trial, step-through, passive avoidance paradigm. The main features observed are a potent antiamnestic activity after i.p. administration (minimal ED being between 0.3 and 1 mg/kg i.p. for most compds.), the presence of a bell-shaped dose-response curve and, generally, a reduction of biol. activity after po administration. However, the unsubstituted compound I shows no evidence of a bell-shaped dose-response curve and completely retains activity when given orally, being 10-30 times more potent than the reference drug oxiracetam. 126101-10-8P ΤT

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and cognition enhancer-activity of)

RN 126101-10-8 HCAPLUS

CN Imidazo[1,2-a]pyridine-2,5(1H,3H)-dione, tetrahydro- (CA INDEX NAME)



L8 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:158246 HCAPLUS

DOCUMENT NUMBER: 112:158246

ORIGINAL REFERENCE NO.: 112:26755a,26758a

TITLE: Condensed imidazole derivatives useful as nootropic

agents, a process and intermediates for their preparation, and pharmaceutical compositions

containing them

INVENTOR(S): Pinza, Mario; Riccaboni, Maria Teresa; Cerri, Alberto;

Farina, Carlo

PATENT ASSIGNEE(S): I.S.F. S.p.A., Italy SOURCE: Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

EP	335483			A2		19891004	EP	1989-301123		19890206
EP	335483			А3		19911218				
	R: AT,	BE,	CH,	DE,	ES,	FR, GB,	GR, I	T, LI, LU, NL,	SE	
FΙ	8900438			Α		19890809	FΙ	1989-438		19890130
BR	8900541			A		19891003	BR	1989-541		19890203
CN	1036204			A		19891011	CN	1989-101740		19890204
DD	283393			A5		19901010	DD	1989-325551		19890206
DD	291996			A5		19910718	DD	1989-337916		19890206
	5053422			Α		19911001		1989-307012		19890206
	8900894			Α		19911030		1989-894		19890206
	1324378			С		19931116		1989-590213		19890206
	8900550			Α		19890809		1989-550		19890207
	8900515			Α		19890809	ИО	1989-515		19890207
	168424			В		19911111				
	168424			С		19920219				
	8929692			А		19890810	AU	1989-29692		19890207
	616240			В2		19911024				
	53363			A2		19901028	HU	1989-574		19890207
	203104			В		19910528				
	204794			В		19920228		1990-4864		19890207
	1799383			A3		19930228		1989-4613489		19890207
	01246281			А		19891002		1989-29571		19890208
	105963			В1		19930130		1989-145763		19890208
	105964			В1		19930130		1989-145764		19890208
	105965			В1		19930130		1989-145765		19890208
	104070			В1		19930720		1989-138146		19890208
	5130319			А		19920714		1991-669806		19910315
	9101566			А		19890809		1991-1566		19910419
	9179479			А		19910912		1991-79479		19910701
	5200406			А		19930406		1992-862855		19920403
PRIORIT	Y APPLN.	INFO	.:					1988-19336		19880208
								1989-307012		19890206
								1989-515		19890207
							US	1991-669806	A3	19910315

OTHER SOURCE(S): MARPAT 112:158246 GI

AB Eighteen title compds. I (R1 = H, C1-4 alkyl, CHR4CONHR5, CHR4CO2R5; R2 = H, C1-5 alkyl, amino acid side chain; R3 = H, C1-4 alkyl, CONH2, CO2R6; R4-R6 = H, C1-4 alkyl; n = 2-4) were prepared as nootropics. For example, cyclocondensation of PhCH2NHCH2CONH2 with OCH(CH2)2CO2Et gave 75% Et 1-benzyl-4-oxo-2-imidazolidinepropanoate, which underwent hydrogenolysis of the benzyl group and cyclization over ion exchangers to give 67% I (R1 = R2 = R3 = H; n = 2) (II). In a passive avoidance test in rats, II and 2 addnl. I were approx. 30-fold as potent as oxiracetam in reversing scopolamine-induced amnesia.

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IT 126101-10-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as nootropic agent)

RN 126101-10-8 HCAPLUS

CN Imidazo[1,2-a]pyridine-2,5(1H,3H)-dione, tetrahydro- (CA INDEX NAME)

=> log y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	35.32	416.67
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-4.00	-6.40

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